

## SEQUENCE LISTING

<110> Bristol-Myers Squibb Company

<120> POLYNUCLEOTIDE ENCODING A NOVEL HUMAN G-PROTEIN COUPLED RECEPTOR,  
HGPRBMY26, EXPRESSED HIGHLY IN TESTIS AND GASTROINTESTINAL TISSUES

<130> D0128NP

<150> US 60/273,963

<151> 2001-03-07

<150> US 60/278,927

<151> 2001-03-27

<160> 76

<170> PatentIn version 3.0

<210> 1

<211> 2260

<212> DNA

<213> homo sapiens

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<222> (440)..(1444)

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gct gtg ctg ctg ttg atc cac aag aat gat ggt gtc agt ctc tgc ttc      568
Ala Val Leu Leu Leu Ile His Lys Asn Asp Gly Val Ser Leu Cys Phe
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acc ttg aat ctg gct gtg gct gac acc ttg att ggt gtg gcc atc tct      616
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acc ctg tgc agc ctg cgg atg gca ttt gtc act tcc tcc gca gct gcc			712
Thr Leu Cys Ser Leu Arg Met Ala Phe Val Thr Ser Ser Ala Ala Ala			
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Ser Val Leu Thr Val Met Leu Ile Thr Phe Asp Arg Tyr Leu Ala Ile			
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Lys Gln Pro Phe Arg Tyr Leu Lys Ile Met Ser Gly Phe Val Ala Gly			
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Ala Cys Ile Ala Gly Leu Trp Leu Val Ser Tyr Leu Ile Gly Phe Leu			
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Pro Leu Gly Ile Pro Met Phe Gln Gln Thr Ala Tyr Lys Gly Gln Cys			
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Ser Phe Phe Ala Val Phe His Pro His Phe Val Leu Thr Leu Ser Cys			
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His Ala Gly Ala Met Ala Gly Gly Tyr Arg Ser Pro Arg Thr Pro Ser			
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Asp Phe Lys Ala Leu Arg Thr Val Ser Val Leu Ile Gly Ser Phe Ala			
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Leu Ser Trp Thr Pro Phe Leu Ile Thr Gly Ile Val Gln Val Ala Cys			
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Gln Glu Cys His Leu Tyr Leu Val Leu Glu Arg Tyr Leu Trp Leu Leu			
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Gly Val Gly Asn Ser Leu Leu Asn Pro Leu Ile Tyr Ala Tyr Trp Gln			
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 Val Leu Thr Ser Phe Leu Leu Phe Leu Ser Ala Arg Asn Cys Gly Pro  
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Ile His Lys Asn Asp Gly Val Ser Leu Cys Phe Thr Leu Asn Leu Ala  
 35 40 45

Val Ala Asp Thr Leu Ile Gly Val Ala Ile Ser Gly Leu Leu Thr Asp  
 50 55 60

Gln Leu Ser Ser Pro Ser Arg Pro Thr Gln Lys Thr Leu Cys Ser Leu  
 65 70 75 80

Arg Met Ala Phe Val Thr Ser Ser Ala Ala Ala Ser Val Leu Thr Val  
 85 90 95

Met Leu Ile Thr Phe Asp Arg Tyr Leu Ala Ile Lys Gln Pro Phe Arg  
 100 105 110

Tyr Leu Lys Ile Met Ser Gly Phe Val Ala Gly Ala Cys Ile Ala Gly  
 115 120 125

Leu Trp Leu Val Ser Tyr Leu Ile Gly Phe Leu Pro Leu Gly Ile Pro  
 130 135 140

Met Phe Gln Gln Thr Ala Tyr Lys Gly Gln Cys Ser Phe Phe Ala Val  
 145 150 155 160

Phe His Pro His Phe Val Leu Thr Leu Ser Cys Val Gly Phe Phe Pro  
 165 170 175

Ala Met Leu Leu Phe Val Phe Phe Tyr Cys Asp Met Leu Lys Ile Ala  
 180 185 190

Ser Met His Ser Gln Gln Ile Arg Lys Met Glu His Ala Gly Ala Met  
 195 200 205

Ala Gly Gly Tyr Arg Ser Pro Arg Thr Pro Ser Asp Phe Lys Ala Leu  
 210 215 220

Arg Thr Val Ser Val Leu Ile Gly Ser Phe Ala Leu Ser Trp Thr Pro  
 225 230 235 240

Phe Leu Ile Thr Gly Ile Val Gln Val Ala Cys Gln Glu Cys His Leu  
 245 250 255

Tyr Leu Val Leu Glu Arg Tyr Leu Trp Leu Leu Gly Val Gly Asn Ser  
260 265 270

Leu Leu Asn Pro Leu Ile Tyr Ala Tyr Trp Gln Lys Glu Val Arg Leu  
275 280 285

Gln Leu Tyr His Met Ala Leu Gly Val Lys Lys Val Leu Thr Ser Phe  
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Leu Leu Phe Leu Ser Ala Arg Asn Cys Gly Pro Glu Arg Pro Arg Glu  
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Gln Leu Arg Lys Ile Lys Thr Asn Tyr Phe Ile Val Ser Leu Ala Phe  
50 55 60

Ala Asp Leu Leu Val Ser Val Leu Val Met Pro Phe Gly Ala Ile Glu  
65 70 75 80

Leu Val Gln Asp Ile Trp Val Tyr Gly Glu Met Phe Cys Leu Val Arg  
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Thr Ser Leu Asp Val Leu Leu Thr Thr Ala Ser Ile Phe His Leu Cys  
100 105 110

Cys Ile Ser Leu Asp Arg Tyr Tyr Ala Ile Cys Cys Gln Pro Leu Val  
115 120 125

Tyr Arg Asn Lys Met Thr Pro Leu Arg Ile Ala Leu Met Leu Gly Gly  
130 135 140

Cys Trp Val Ile Pro Met Phe Ile Ser Phe Leu Pro Ile Met Gln Gly  
145 150 155 160

Trp Asn Asn Ile Gly Ile Val Asp Leu Ile Glu Lys Arg Lys Phe Asn  
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Gln Asn Ser Asn Ser Thr Tyr Cys Val Phe Met Val Asn Lys Pro Tyr  
180 185 190

Ala Ile Thr Cys Ser Val Val Ala Phe Tyr Ile Pro Phe Leu Leu Met  
195 200 205

Val Leu Ala Tyr Tyr Arg Ile Tyr Val Thr Ala Lys Glu His Ala Arg  
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Gln Ile Gln Val Leu Gln Arg Ala Gly Ala Pro Ala Glu Gly Arg Pro  
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Gln Pro Ala Asp Gln His Ser Thr His Arg Met Arg Thr Glu Thr Lys  
245 250 255

Ala Ala Lys Thr Leu Cys Ile Ile Met Gly Cys Phe Cys Leu Cys Trp  
260 265 270

Ala Pro Phe Phe Val Thr Asn Ile Val Asp Pro Phe Ile Asp Tyr Thr  
275 280 285

Val Pro Gly Gln Leu Trp Thr Ala Phe Leu Trp Leu Gly Tyr Ile Asn  
290 295 300

Ser Gly Leu Asn Pro Phe Leu Tyr Ala Phe Leu Asn Lys Ser Phe Arg  
305 310 315 320

Arg Ala Phe Leu Ile Ile Leu Cys Cys Asp Asp Glu Arg Tyr Arg Arg  
325 330 335

Pro Ser Ile Leu Gly Gln Thr Val Pro Cys Ser Thr Thr Thr Ile Asn  
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Gly Ser Thr His Val Leu Arg Asp Thr Val Glu Cys Gly Gly Gln Trp  
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Glu Ser Gln Cys His Pro Ala Ala Ser Ser Pro Leu Val Ala Ala Gln  
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Pro Ile Asp Thr  
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Leu	Ile 50	Leu	Leu	Thr	Val	Ile 55	Gly	Asn	Val	Leu	Val 60	Ile	Leu	Ala	Val	
Thr 65	Cys	His	Arg	Lys	Met 70	Arg	Thr	Val	Thr	Asn 75	Phe	Phe	Ile	Val	Ser 80	
Leu	Ala	Cys	Ala	Asp 85	Leu	Ser	Val	Gly	Ile 90	Thr	Val	Leu	Pro	Phe 95	Ala	
Ala	Thr	Asn	Asp 100	Ile	Leu	Gly	Tyr	Trp 105	Pro	Phe	Gly	Gly	Tyr 110	Cys	Asp	
Val	Trp	Val 115	Ser	Phe	Asp	Val	Leu 120	Asn	Ser	Thr	Ala	Ser 125	Ile	Leu	Asn	
Leu	Val 130	Val	Ile	Ala	Phe	Asp 135	Arg	Phe	Leu	Ala	Ile 140	Thr	Ala	Pro	Phe	
Thr 145	Tyr	His	Thr	Arg	Met 150	Thr	Glu	Arg	Thr	Ala 155	Gly	Ile	Leu	Ile	Ala 160	
Thr	Val	Trp	Gly	Ile 165	Ser	Leu	Val	Val	Ser 170	Phe	Leu	Pro	Ile	Gln 175	Ala	
Gly	Trp	Tyr	Arg 180	Asp	Asn	Gln	Ser	Glu 185	Glu	Ala	Leu	Ala	Ile 190	Tyr	Ser	
Asp	Pro	Cys 195	Leu	Cys	Ile	Phe	Thr 200	Ala	Ser	Thr	Ala	Tyr 205	Thr	Ile	Val	
Ser	Ser 210	Leu	Ile	Ser	Phe	Tyr 215	Ile	Pro	Leu	Leu	Ile 220	Met	Leu	Val	Phe	
Tyr 225	Gly	Ile	Ile	Phe	Lys 230	Ala	Ala	Arg	Asp	Gln 235	Ala	Arg	Lys	Ile	Asn 240	
Ala	Leu	Glu	Gly	Arg 245	Leu	Glu	Gln	Glu	Asn 250	Asn	Arg	Gly	Lys	Lys 255	Ile	
Ser	Leu	Ala	Lys 260	Glu	Lys	Lys	Ala	Ala 265	Lys	Thr	Leu	Gly	Ile 270	Ile	Met	
Gly	Val	Phe 275	Ile	Leu	Cys	Trp	Leu 280	Pro	Phe	Phe	Val	Val 285	Asn	Ile	Val	
Asn	Pro 290	Phe	Cys	Asp	Arg	Cys 295	Val	Gln	Pro	Ala	Val 300	Phe	Ile	Ala	Leu	
Thr 305	Trp	Leu	Gly	Trp	Ile 310	Asn	Ser	Cys	Phe	Asn 315	Pro	Ile	Ile	Tyr	Ala 320	
Phe	Asn	Lys	Glu	Phe	Arg	Lys	Val	Phe	Val	Lys	Met	Ile	Cys	Cys	His	

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Lys	Cys	Arg	Gly	Val	Thr	Val	Gly	Pro	Asn	His	Ala	Asp	Leu	Asn	Tyr		
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Asp	Pro	Val	Ala	Met	Arg	Leu	Lys	Lys	Arg	Gly	Glu	Asn	Ala	Asn	Gly		
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Thr	Val	Asn	Gly	Asp	Ala	Asn	Gly	Lys	Ala	Asn	Gly	Asn	Ile	Glu	Ala		
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Val	Gly	Gly	Val	Ser	Val	Arg	Ala	Leu	Thr	Gly	Cys	Val	Leu	Cys	Ala		
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Leu	Ile	Val	Ser	Thr	Leu	Leu	Gly	Asn	Thr	Leu	Val	Cys	Ala	Ala	Val		
	50					55					60						
Ile	Lys	Phe	Arg	His	Leu	Arg	Ser	Lys	Val	Thr	Asn	Ala	Phe	Val	Val		
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Ser	Leu	Ala	Val	Ser	Asp	Leu	Phe	Val	Ala	Val	Leu	Val	Met	Pro	Trp		
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Arg	Ala	Val	Ser	Glu	Val	Ala	Gly	Val	Trp	Leu	Phe	Gly	Arg	Phe	Cys		
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Asp	Thr	Trp	Val	Ala	Phe	Asp	Ile	Met	Cys	Ser	Thr	Ala	Ser	Ile	Leu		
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Asn	Leu	Cys	Val	Ile	Ser	Met	Asp	Arg	Tyr	Trp	Ala	Ile	Ser	Asn	Pro		
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Phe	Arg	Tyr	Glu	Arg	Arg	Met	Thr	Arg	Arg	Phe	Ala	Phe	Leu	Met	Ile		
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Ala	Val	Ala	Trp	Thr	Leu	Ser	Val	Leu	Ile	Ser	Phe	Ile	Pro	Val	Gln		
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Leu	Asn	Trp	His	Arg	Ala	Asp	Asn	Asn	Ser	Ser	Ala	His	Glu	Gln	Gly		
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Asp Cys Asn Ala Ser Leu Asn Arg Thr Tyr Ala Ile Ser Ser Ser Leu
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Ile Ser Phe Tyr Ile Pro Val Leu Ile Met Val Gly Thr Tyr Thr Arg
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Ile Phe Arg Ile Ala Gln Thr Gln Ile Arg Arg Ile Ser Ser Leu Glu
    225                                230                    235                    240

Arg Ala Ala Gly Gln Arg Ala Gln Asn Gln Ser His Arg Ala Ser Thr
    245                                250                    255

His Asp Glu Ser Ala Leu Lys Thr Ser Phe Lys Arg Glu Thr Lys Val
    260                                265                    270

Leu Lys Thr Leu Ser Val Ile Met Gly Val Phe Val Phe Cys Trp Leu
    275                                280                    285

Pro Phe Phe Val Leu Asn Cys Val Val Pro Phe Cys Asp Val Asp Lys
    290                                295                    300

Val Gly Glu Pro Pro Cys Val Ser Asp Thr Thr Phe Asn Ile Phe Val
    305                                310                    315                    320

Trp Phe Gly Trp Ala Asn Ser Ser Leu Asn Pro Val Ile Tyr Ala Phe
    325                                330                    335

Asn Ala Asp Phe Arg Lys Ala Phe Thr Thr Ile Leu Gly Cys Ser Lys
    340                                345                    350

Phe Cys Ser Ser Ser Ala Val Gln Ala Val Asp Phe Ser Asn Glu Leu
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Val Ser Tyr His His Asp Thr Thr Leu Gln Lys Glu Pro Val Pro Gly
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Pro Gly Ala His Arg Leu Val Ala Pro Leu Pro Gln Asn Arg Gly Asp
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Ala Gly Pro Asn Phe Asp Lys Val Ser Val Val Ser Asp Asp Ser Arg
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Ala Asp Arg Asn Leu Leu Leu Pro Ala Ile Leu Gln Cys Asp Cys Glu
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Ala Glu Ile Ser Leu Asp Met Val Pro Phe Gly Ser Ser Gly Pro Ala
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<213> CYPRINUS CARPIO

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Ala	Leu	Val 35	Cys	Ala	Thr	Val	Val 40	Arg	Phe	Arg	His	Leu 45	Arg	Ala	Lys
Val	Thr 50	His	Val	Phe	Ile	Ala 55	Ser	Leu	Ala	Val	Ser 60	Asp	Leu	Leu	Val
Ala 65	Val	Leu	Val	Met	Pro 70	Trp	Lys	Ala	Val	Ala 75	Glu	Val	Ala	Gly	Phe 80
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Val	Gln 210	Ile	Arg	Arg	Ile	Ala 215	Ser	Leu	Glu	Arg	Ala 220	Ala	Glu	His	Ala
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 Arg Thr Pro Val Glu Thr Val Asn Ala Ser Asn Ala Leu Val Ser Tyr  
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 Asn Arg Glu Ala Ala Ser Ala Cys Val Asn Ile Ile Pro Asn Val Val  
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 Asp Leu Asp Gly Ala Val His Ala Asn Gly Ile Leu  
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 Val Ser Thr Leu Leu Gly Asn Thr Leu Val Cys Ala Ala Val Thr Lys  
 35 40 45  
 Phe Arg His Leu Arg Ser Lys Val Thr Asn Phe Phe Val Ile Ser Leu  
 50 55 60  
 Ala Val Ser Asp Leu Leu Val Ala Ile Leu Val Met Pro Trp Lys Ala  
 65 70 75 80  
 Val Thr Glu Val Ala Gly Phe Trp Pro Phe Gly Ser Phe Cys Asn Ile  
 85 90 95  
 Trp Val Ala Phe Asp Ile Met Cys Ser Thr Ala Ser Ile Leu Asn Leu  
 100 105 110  
 Cys Ile Ile Ser Val Asp Arg Tyr Trp Ala Ile Ser Ser Pro Phe Arg  
 115 120 125  
 Tyr Glu Arg Lys Met Thr Pro Lys Val Ala Phe Val Met Ile Ser Val  
 130 135 140  
 Ala Trp Thr Leu Ser Leu Leu Ile Ser Phe Ile Pro Val Gln Leu Asn  
 145 150 155 160  
 Trp His Lys Ala Gln Thr Thr Ser Tyr Phe Asp His Asn Gly Ser Tyr  
 165 170 175  
 Gly Asp Leu Leu Leu Asp Asn Cys Asp Ser Ser Leu Asn Arg Thr Tyr

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Ala	Ile	Ser	Ser	Ser	Leu	Ile	Ser	Phe	Tyr	Ile	Pro	Val	Ala	Ile	Met
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Ile	Val	Thr	Tyr	Thr	Arg	Ile	Tyr	Arg	Ile	Ala	Gln	Lys	Gln	Ile	Arg
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Met	Ser	Phe	Lys	Arg	Glu	Thr	Lys	Val	Leu	Lys	Thr	Leu	Ser	Val	Ile
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Met	Val	Pro	Phe	Cys	Glu	Gln	Ala	His	Pro	Asn	Gly	Ser	Ala	Asp	Phe
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Pro	Cys	Val	Ser	Ser	Thr	Thr	Phe	Asn	Val	Phe	Val	Trp	Phe	Gly	Trp
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Ala	Asn	Ser	Ser	Leu	Asn	Pro	Ile	Ile	Tyr	Ala	Phe	Asn	Ala	Asp	Phe
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Ser	Asn	Ala	Ile	Glu	Ile	Val	Ser	Ile	Asn	Asn	Asn	Gly	Ala	Pro	Pro
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Gln	Leu	Val	His	Asn	Gln	Pro	Lys	Ala	Cys	Phe	Ser	Lys	Gly	Cys	Ile
	370					375					380				
Pro	Lys	Glu	Gly	Asn	Leu	Arg	His	Gly	Ile	Pro	His	Thr	Ile	Leu	Ser
385					390					395					400
Gln	Asp	Glu	Glu	Leu	Gln	Lys	Lys	Gly	Asn	Ala	Ile	Glu	Arg	Ile	Ser
				405				410						415	
Pro	Ala	Leu	Ser	Gly	Ser	Leu	Asp	Ser	Glu	Ala	Asp	Leu	Ser	Leu	Asp
		420						425					430		
Lys	Ile	Asn	Pro	Thr	Thr	Gln	Asn	Gly	Gln	Asn	Ser	Thr			
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 <211> 428  
 <212> PRT  
 <213> MELEAGRIS GALLOPAVO  
 <400> 8

**SECRET**

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Ala	Ala	Val	Leu 20	Ser	Arg	Gln	Trp	Ala 25	Val	Gly	Ala	Ala	Leu 30	Ser	Ile
Thr	Ile	Leu 35	Val	Ile	Val	Ala	Gly 40	Asn	Leu	Leu	Val	Ile 45	Val	Ala	Ile
Ala	Lys 50	Thr	Pro	Arg	Leu	Gln 55	Thr	Met	Thr	Asn	Val 60	Phe	Val	Thr	Ser
Leu 65	Ala	Cys	Ala	Asp	Leu 70	Val	Met	Gly	Leu	Leu 75	Val	Val	Pro	Pro	Gly 80
Ala	Thr	Ile	Leu	Leu 85	Ser	Gly	His	Trp	Pro 90	Tyr	Gly	Thr	Val	Val 95	Cys
Glu	Leu	Trp	Thr 100	Ser	Leu	Asp	Val	Leu 105	Cys	Val	Thr	Ala	Ser 110	Ile	Glu
Thr	Leu	Cys 115	Ala	Ile	Ala	Val	Asp 120	Arg	Tyr	Leu	Ala	Ile 125	Thr	Ala	Pro
Leu	Gln 130	Tyr	Glu	Ala	Leu	Val 135	Thr	Lys	Gly	Arg	Ala 140	Trp	Ala	Val	Val
Cys 145	Met	Val	Trp	Ala	Ile 150	Ser	Ala	Phe	Ile	Ser 155	Phe	Leu	Pro	Ile	Met 160
Asn	His	Trp	Trp	Arg 165	Asp	Gly	Ala	Asp	Glu 170	Gln	Ala	Val	Arg	Cys 175	Tyr
Asp	Asp	Pro	Arg 180	Cys	Cys	Asp	Phe	Val 185	Thr	Asn	Met	Thr	Tyr 190	Ala	Ile
Val	Ser	Ser 195	Thr	Val	Ser	Phe	Tyr 200	Val	Pro	Leu	Leu	Val 205	Met	Ile	Phe
Val	Tyr 210	Val	Arg	Val	Phe	Ala 215	Val	Ala	Thr	Arg	His 220	Val	Gln	Leu	Ile
Gly 225	Lys	Asp	Lys	Val	Arg 230	Phe	Leu	Gln	Glu	Asn 235	Pro	Ser	Leu	Ser	Ser 240
Arg	Gly	Gly	Arg	Trp 245	Arg	Arg	Pro	Ser	Arg 250	Leu	Leu	Ala	Ile	Lys 255	Glu
His	Lys	Ala	Leu 260	Lys	Thr	Leu	Gly	Ile 265	Ile	Met	Gly	Thr	Phe 270	Thr	Leu
Cys	Trp	Leu 275	Pro	Phe	Phe	Val	Ala 280	Asn	Ile	Ile	Lys	Val 285	Phe	Cys	Arg
Pro	Leu 290	Val	Pro	Asp	Gln	Leu 295	Phe	Leu	Phe	Leu	Asn 300	Trp	Leu	Gly	Tyr

Val Asn Ser Ala Phe Asn Pro Ile Ile Tyr Cys Arg Ser Pro Asp Phe  
 305 310 315 320  
 Arg Ser Ala Phe Arg Lys Leu Leu Cys Cys Pro Arg Arg Ala Asp Arg  
 325 330 335  
 Arg Leu His Ala Ala Pro Gln Asp Pro Gln His Cys Ser Cys Ala Phe  
 340 345 350  
 Ser Pro Arg Gly Asp Pro Met Glu Asp Ser Lys Ala Val Asp Pro Gly  
 355 360 365  
 His Leu Arg Glu Asp Ser Glu Val Gln Gly Ser Gly Arg Arg Glu Glu  
 370 375 380  
 Asn Ala Ser Ser His Gly Gly Gly His Gln Gln Arg Pro Leu Gly Glu  
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 Cys Trp Leu Gln Gly Met Gln Ser Met Leu Cys Glu Gln Leu Asp Glu  
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 Phe Thr Ser Thr Glu Met Pro Ala Gly Pro Ser Val  
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 <211> 418  
 <212> PRT  
 <213> MUS MUSCULUS

<400> 9

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 35 40 45  
 Phe Gly Asn Val Leu Val Ile Thr Ala Ile Ala Lys Phe Glu Arg Leu  
 50 55 60  
 Gln Thr Val Thr Asn Tyr Phe Ile Ile Ser Leu Ala Cys Ala Asp Leu  
 65 70 75 80  
 Val Met Gly Leu Ala Val Val Pro Phe Gly Ala Ser His Ile Leu Met  
 85 90 95  
 Lys Met Trp Asn Phe Gly Asn Phe Trp Cys Glu Phe Trp Thr Ser Ile  
 100 105 110  
 Asp Val Leu Cys Val Thr Ala Ser Ile Glu Thr Leu Cys Val Ile Ala  
 115 120 125  
 Val Asp Arg Tyr Val Ala Ile Thr Ser Pro Phe Lys Tyr Gln Ser Leu  
 130 135 140

Leu Thr Lys Asn Lys Ala Arg Val Val Ile Leu Met Val Trp Ile Val  
 145 150 155 160  
 Ser Gly Leu Thr Ser Phe Leu Pro Ile Gln Met His Trp Tyr Arg Ala  
 165 170 175  
 Thr His Lys Lys Ala Ile Asp Cys Tyr Thr Glu Glu Thr Cys Cys Asp  
 180 185 190  
 Phe Phe Thr Asn Gln Ala Tyr Ala Ile Ala Ser Ser Ile Val Ser Phe  
 195 200 205  
 Tyr Val Pro Leu Cys Val Met Val Phe Val Tyr Ser Arg Val Phe Gln  
 210 215 220  
 Val Ala Lys Arg Gln Leu Gln Lys Ile Asp Lys Ser Glu Gly Arg Phe  
 225 230 235 240  
 His Ala Gln Asn Leu Ser Gln Val Glu Gln Asp Gly Arg Ser Gly His  
 245 250 255  
 Gly Leu Arg Arg Ser Ser Lys Phe Cys Leu Lys Glu His Lys Ala Leu  
 260 265 270  
 Lys Thr Leu Gly Ile Ile Met Gly Thr Phe Thr Leu Cys Trp Leu Pro  
 275 280 285  
 Phe Phe Ile Val Asn Ile Val His Val Ile Arg Asp Asn Leu Ile Pro  
 290 295 300  
 Lys Glu Val Tyr Ile Leu Leu Asn Trp Leu Gly Tyr Val Asn Ser Ala  
 305 310 315 320  
 Phe Asn Pro Leu Ile Tyr Cys Arg Ser Pro Asp Phe Arg Ile Ala Phe  
 325 330 335  
 Gln Glu Leu Leu Cys Leu Arg Arg Ser Ser Ser Lys Thr Tyr Gly Asn  
 340 345 350  
 Gly Tyr Ser Ser Asn Ser Asn Gly Arg Thr Asp Tyr Thr Gly Glu Pro  
 355 360 365  
 Asn Thr Cys Gln Leu Gly Gln Glu Arg Glu Gln Glu Leu Leu Cys Glu  
 370 375 380  
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 Pro Leu

<210> 10  
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&lt;212&gt; PRT

&lt;213&gt; SUS SCROFA

&lt;400&gt; 10

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Ser His Ala Pro Asp Gln Asp Val Pro Gln Glu Arg Asp Glu Ala Trp
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Val Val Gly Met Ala Ile Val Met Ser Leu Ile Val Leu Ala Ile Val
          35          40          45

Phe Gly Asn Val Leu Val Ile Thr Ala Ile Ala Lys Phe Glu Arg Leu
          50          55          60

Gln Thr Val Thr Asn Tyr Phe Ile Thr Ser Leu Ala Cys Ala Asp Leu
          65          70          75          80

Val Met Gly Leu Ala Val Val Pro Phe Gly Ala Ser His Ile Leu Met
          85          90          95

Lys Met Trp Thr Phe Gly Ser Phe Trp Cys Glu Phe Trp Ile Ser Ile
          100          105          110

Asp Val Leu Cys Val Thr Ala Ser Ile Glu Thr Leu Cys Val Ile Ala
          115          120          125

Val Asp Arg Tyr Leu Ala Ile Thr Ser Pro Phe Lys Tyr Gln Cys Leu
          130          135          140

Leu Thr Lys Asn Lys Ala Arg Val Val Ile Leu Met Val Trp Val Val
          145          150          155          160

Ser Gly Leu Ile Ser Phe Leu Pro Ile Lys Met His Trp Tyr Gln Ala
          165          170          175

Thr His Arg Glu Ala Leu Asn Cys Tyr Ala Glu Glu Ala Cys Cys Asp
          180          185          190

Phe Phe Thr Asn Gln Pro Tyr Ala Ile Ala Ser Ser Ile Val Ser Phe
          195          200          205

Tyr Leu Pro Leu Val Val Met Val Phe Val Tyr Ser Arg Val Phe Gln
          210          215          220

Val Ala Arg Arg Gln Leu Gln Lys Ile Asp Lys Ser Glu Gly Arg Phe
          225          230          235          240

His Ala Gln Asn Leu Ser Gln Ala Glu Gln Asp Gly Arg Ser Gly Pro
          245          250          255

Gly His Arg Arg Ser Ser Lys Phe Cys Leu Lys Glu His Lys Ala Leu
          260          265          270

Lys Thr Leu Gly Ile Ile Met Gly Thr Phe Thr Leu Cys Trp Leu Pro

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 104

275						280						285					
Phe	Phe	Ile	Val	Asn	Ile	Val	His	Gly	Ile	His	Asp	Asn	Leu	Ile	Pro		
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Lys	Glu	Val	Tyr	Ile	Leu	Leu	Asn	Trp	Val	Gly	Tyr	Val	Asn	Ser	Ala		
305					310					315					320		
Phe	Asn	Pro	Leu	Ile	Tyr	Cys	Arg	Ser	Pro	Asp	Phe	Arg	Met	Ala	Phe		
				325					330					335			
Gln	Glu	Leu	Leu	Cys	Leu	His	Arg	Ser	Ser	Leu	Lys	Ala	Tyr	Gly	Asn		
			340					345					350				
Gly	Cys	Ser	Ser	Asn	Ser	Asn	Gly	Arg	Thr	Asp	Tyr	Thr	Gly	Glu	Gln		
		355					360					365					
Ser	Gly	Cys	Tyr	Leu	Gly	Glu	Glu	Lys	Asp	Ser	Glu	Arg	Leu	Cys	Glu		
	370					375					380						
Asp	Ala	Pro	Gly	Pro	Glu	Gly	Cys	Ala	His	Arg	Gln	Gly	Thr	Val	Pro		
385					390					395					400		
Asp	Asp	Ser	Thr	Asp	Ser	Gln	Gly	Arg	Asn	Cys	Ser	Thr	Asn	Asp	Ser		
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Met Leu

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<211> 415
<212> PRT
<213> CANIS FAMILIARIS
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<400> 11

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			20					25					30		
Val	Val	Gly	Met	Gly	Ile	Val	Met	Ser	Leu	Ile	Val	Leu	Ala	Ile	Val
		35					40					45			
Phe	Gly	Asn	Val	Leu	Val	Ile	Thr	Ala	Ile	Ala	Arg	Phe	Glu	Arg	Leu
	50					55					60				
Gln	Thr	Val	Thr	Asn	Tyr	Phe	Ile	Thr	Ser	Leu	Ala	Cys	Ala	Asp	Leu
65					70					75					80
Val	Met	Gly	Leu	Ala	Val	Val	Pro	Phe	Gly	Ala	Ser	His	Ile	Leu	Met
				85					90					95	
Lys	Met	Trp	Thr	Phe	Gly	Asn	Phe	Trp	Cys	Glu	Phe	Trp	Thr	Ser	Ile
			100					105					110		

**SECRET**

Asp	Val	Leu	Cys	Val	Thr	Ala	Ser	Ile	Glu	Thr	Leu	Cys	Val	Ile	Ala
		115					120					125			
Val	Asp	Arg	Tyr	Phe	Ala	Ile	Thr	Ser	Pro	Phe	Lys	Tyr	Gln	Ser	Leu
	130					135					140				
Leu	Thr	Lys	Asn	Lys	Ala	Arg	Val	Val	Ile	Leu	Met	Val	Trp	Ile	Val
145					150					155					160
Ser	Gly	Leu	Thr	Ser	Phe	Leu	Pro	Ile	Gln	Met	His	Trp	Tyr	Arg	Ala
				165					170					175	
Thr	His	Gln	Glu	Ala	Ile	Asn	Cys	Tyr	Ala	Lys	Glu	Thr	Cys	Cys	Asp
			180					185					190		
Phe	Phe	Thr	Asn	Gln	Ala	Tyr	Ala	Ile	Ala	Ser	Ser	Ile	Val	Ser	Phe
		195					200					205			
Tyr	Leu	Pro	Leu	Val	Val	Met	Val	Phe	Val	Tyr	Ser	Arg	Val	Phe	Gln
	210					215					220				
Val	Ala	Gln	Arg	Gln	Leu	Gln	Lys	Ile	Asp	Arg	Ser	Glu	Gly	Arg	Phe
225					230					235					240
His	Ala	Gln	Asn	Leu	Ser	Gln	Val	Glu	Gln	Asp	Gly	Arg	Ser	Gly	His
				245					250					255	
Gly	His	Arg	Arg	Ser	Ser	Lys	Phe	Cys	Leu	Lys	Glu	His	Lys	Ala	Leu
			260					265					270		
Lys	Thr	Leu	Gly	Ile	Ile	Met	Gly	Thr	Phe	Thr	Leu	Cys	Trp	Leu	Pro
		275					280					285			
Phe	Phe	Ile	Val	Asn	Ile	Val	His	Val	Ile	Gln	Asp	Asn	Leu	Ile	Pro
	290					295					300				
Lys	Glu	Val	Tyr	Ile	Leu	Leu	Asn	Trp	Val	Gly	Tyr	Val	Asn	Ser	Ala
305					310					315					320
Phe	Asn	Pro	Leu	Ile	Tyr	Cys	Arg	Ser	Pro	Asp	Phe	Arg	Ile	Ala	Phe
				325					330					335	
Gln	Glu	Leu	Leu	Cys	Leu	Arg	Arg	Ser	Ser	Leu	Lys	Ala	Tyr	Gly	Asn
			340					345					350		
Gly	Tyr	Ser	Asn	Asn	Ser	Asn	Ser	Arg	Ser	Asp	Tyr	Ala	Gly	Glu	His
		355					360					365			
Ser	Gly	Cys	His	Leu	Gly	Gln	Glu	Lys	Asp	Ser	Glu	Leu	Leu	Cys	Glu
	370					375					380				
Asp	Pro	Pro	Gly	Thr	Glu	Asp	Arg	Gln	Gly	Thr	Val	Pro	Ser	Asp	Ser
385					390					395					400
Val	Asp	Ser	Gln	Gly	Arg	Asn	Cys	Ser	Thr	Asn	Asp	Ser	Leu	Leu	
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**SECRET**

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<212> PRT
<213> HOMO SAPIENS
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<400> 13

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Ser Gly Leu Leu Thr  
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<213> HOMO SAPIENS
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<400> 14

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Ile Thr Phe

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<210> 15
<211> 28
<212> PRT
<213> HOMO SAPIENS
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<400> 15

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Phe Val Phe Phe Tyr  
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<210> 17

<211> 22

<212> PRT

<213> HOMO SAPIENS

<400> 17

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Leu Ile Thr Gly Ile Val  
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<210> 18

<211> 20

<212> PRT

<213> HOMO SAPIENS

<400> 18

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Tyr Ala Tyr Trp  
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<210> 19

<211> 840

<212> DNA

<213> homo sapiens

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gctgtggctg acaccttgat tgggtgtggcc atctctggcc tactcacaga ccagctctcc	180
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cagactgcct acaaaggga gtgcagcttc tttgctgtat ttcaccctca cttcgtgctg	480
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atgctcaaga	ttgcctccat	gcacagccag	cagattcgaa	agatggaaca	tgcaggagcc	600
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tctgtttctca	ttgggagctt	tgctctatcc	tggacccccct	tccttatcac	tggcattgtg	720
caggtggcct	gccaggagtg	tcacctctac	ctagtgctgg	aacggtacct	gtggctgctc	780
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<213> homo sapiens
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<400> 22
ctttgaagtc gctgggagtc 20
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<210> 23
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<212> PRT
<213> HOMO SAPIENS
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<400> 23

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<212> PRT
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<400> 24

Gln Lys Thr Leu Cys Ser Leu Arg Met Ala Phe Val Thr  
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<210> 25
<211> 13
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<400> 25

Ala Gly Gly Tyr Arg Ser Pro Arg Thr Pro Ser Asp Phe  
1 5 10

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Phe Leu Leu Phe Leu Ser Ala Arg Asn Cys Gly Pro Glu  
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<210> 27
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<212> PRT
<213> HOMO SAPIENS
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<400> 27

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1 5 10 15

Asp Arg Tyr Leu Ala Ile Lys Gln Pro Phe Arg  
20 25

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<210> 28
<211> 26
<212> PRT
<213> HOMO SAPIENS
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<400> 28

Phe Leu Pro Leu Gly Ile Pro Met Phe Gln Gln Thr Ala Tyr Lys Gly  
1 5 10 15

Gln Cys Ser Phe Phe Ala Val Phe His Pro  
20 25

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<212> PRT
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<400> 29

Ile Val Gln Val Ala Cys Gln Glu Cys His Leu Tyr Leu Val Leu Glu  
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<210>	30
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<213>	HOMO SAPIENS

<400> 30

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1 5 10 15

Cys Thr Cys Cys Cys Thr Cys Ala Thr Cys Ala Thr Thr Gly Cys Thr  
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Ala Cys Thr Ala Ala Cys  
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